



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
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D2940-1
Job Sheet 184871



Part No: D2940-1

Job Qty: 10 ea

Part Name: Support



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/17/18

Job Tracking No:

Due Date: 11/2/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV C IPP C 02.11.26 Reformat; Added P/O KJ IPP Rev:D Added priming as per Rev B 07-04-30 JLM
IPP E 08.03.19 Re-format Ec verified by DD IPP Rev:F 08-10-22 add qc14 DD verified by:EC IPP Rev:G
11.08.04 as per dwg rev.C DD verf:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea	11/2/18	11/2/18	0.00	0.00	Start Up Machining-1		Kt 2018-11-08
100	CNC Vertical Machining	10 pcs	11/2/18	11/2/18	0.32	23.81	HAAS1-2		Kt 2018-11-08
110	QC	10 pcs	11/2/18	11/2/18	0.00	0.00	QC2 Machining-1		Kt 2018-11-08
120	QC	10 pcs	11/2/18	11/2/18	0.00	0.00	QC8 Machining-1		2018-11-11
130	Crosstubes	10 pcs	11/2/18	11/2/18	0.00	1.25	Crosstubes-2		AS 18-11-18 DAS
140	QC	10 pcs	11/2/18	11/2/18	0.00	0.00	QC5		NOV 19 2018 68
170	Packaging	10 pcs	11/2/18	11/2/18	0.00	0.00	Packaging3-1	LG051	AS 18-11-2019
180	QC21-SA	10 Ea	11/2/18	11/2/18	0.00	0.00	QC21		21

Part Op 100 - 1-Machine as per Folio FA079

Descriptions: 130 - Per note 8 on page 1 of dwg D2940, Prep inner concave surface of support and apply 3M Scotch-Weld as per dwg.
170 - LOCATION : LG052 138852 exp 7/19

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
DSK081	D2940-1 Turning Detail	5 Ea (.5 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	DSK081	5	3	0

5124823 → 5x

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	3.250 Support	0.240Inches + 0.020 - 0.000	0.260 0.240		
2	3.250 Support	0.490Inches + 0.020 - 0.000	0.510 0.490		
3	3.250 Support	0.140Inches + 0.020 - 0.000	0.160 0.140		
4	3.250 Support	3.510Inches + 0.020 - 0.000	3.530 3.510		

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

5	3.250 Support	1.633Inches	+ 0.040 - 0.000	1.673 1.633
6	3.250 Support	1.493Inches	+ 0.020 - 0.000	1.513 1.493
7	3.250 Support	0.040Inches	+ 0.020 - 0.000	0.060 0.040
8	3.250 Support	0.188Inches	+ 0.005 - 0.000	0.193 0.188
9	3.250 Support	0.140Inches	+ 0.020 - 0.000	0.160 0.140
10	3.250 Support	2.518Inches	+ 0.020 - 0.000	2.538 2.518
11	3.250 Support	0.040Inches	+ 0.020 - 0.000	0.060 0.040
12	3.250 Support	0.010Inches	+ 0.010 - 0.000	0.020 0.010
13	3.250 Support	0.140Inches	+ 0.020 - 0.000	0.160 0.140
14	3.250 Support	0.350Inches	+ 0.100 - 0.000	0.450 0.350
15	3.250 Support	0.240Inches	+ 0.020 - 0.000	0.260 0.240
16	3.250 Support	0.150Inches	+ 0.020 - 0.000	0.170 0.150
17	3.250 Support	0.053Inches	+ 0.020 - 0.000	0.073 0.053
18	3.250 Support	101.640Inches	+ 4.000 - 0.000	105.640 101.640
19	3.250 Support	0.260Inches	+ 0.007 - 0.000	0.267 0.260
20	3.250 Support	0.053Inches	+ 0.020 - 0.000	0.073 0.053
21	3.250 Support	4.118Inches	+ 0.020 - 0.000	4.138 4.118

Plex 10/17/18 12:38 PM Dart.lajeunesse.marie



Container No: S125887



Part: D2940-1

Job No: 184871

Serial No/Batch: S125887

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
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Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 11/08/18

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐			
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Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
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Description Work Order Deviation 	Disposition 	Completed By
		Lead hand / Supervisor Approval Verification
		QC / QA Coordinator Approval

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐			FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

DART AEROSPACE LTD		Work Order:	
Description: Ø3.250 Support		Part Number: D2940-1	
Inspection Dwg: D2940	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	0.240	0.260		R.250 OK	R.250 OK	R.250 OK	R.250 OK	R.250 OK
AB	0.490	0.510		R.500 OK	R.500 OK	R.500 OK	R.500 OK	R.500 OK
AC	0.140	0.160		.154	.155	.155	.155	.153
AD	3.510	3.530		3.516	3.516	3.518	3.518	3.518
AE	1.633	1.673		1.666	1.665	1.665	1.666	1.665
AF	1.493	1.513		1.511	1.510	1.509	1.511	1.513
AG	0.040	0.060		.052	.052	.053	.053	.051
AH	0.188	0.193		.189 Ø	.189 Ø	.189 Ø	.189 Ø	.189 Ø
AI	0.140	0.160		.153	.152	.153	.153	.151
AJ	2.518	2.538		2.528	2.530	2.527	2.528	2.530
AK	0.040	0.060		.048	.046	.046	.047	.045
AL	0.010	0.020		.010	.010	.010	.010	.010
AM	0.140	0.160		.156	.155	.156	.158	.157
AN	0.350	0.450		.375	.375	.375	.375	.375
AO	0.240	0.260		R.250 OK	R.250 OK	R.250 OK	R.250 OK	R.250 OK
AP	0.150	0.170		.155	.154	.155	.155	.154
AQ	0.053	0.073		R.063 OK	R.063 OK	R.063 OK	R.063 OK	R.063 OK
AR	101.64	105.64		103°	103°	103°	103°	103°
AS	0.260	0.267		.260 Ø	.260 Ø	.260 Ø	.260 Ø	.260 Ø
AT	0.053	0.073		R.063 OK	R.063 OK	R.063 OK	R.063 OK	R.063 OK
AU	4.118	4.138		4.122	4.121	4.121	4.121	4.122
AV								
AW								
Accept/Reject								

Measured by: M.M. 2018/11/07 Date: _____

Audited by: SMK Date: 18/11/11

Prototype Approval: _____ Date: _____

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	
E	12.01.31	Dwg Rev. updated	KJ	

DART AEROSPACE LTD		Work Order:	
Description: Ø3.250 Support		Part Number: D2940-1	
Inspection Dwg: D2940	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ **First Article**
☐ **Prototype**

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	6 <i>✓</i>	7 <i>✓</i>	8 <i>✓</i>	9 <i>✓</i>	10 <i>✓</i>
HAAS Section								
AA	0.240	0.260		0.250 OK	0.250	0.250	0.250	0.250
AB	0.490	0.510		0.500 OK	0.500	0.500	0.500	0.500
AC	0.140	0.160		0.156	0.156	0.156	0.150	0.150
AD	3.510	3.530		3.516	3.516	3.514	3.518	3.518
AE	1.633	1.673		1.668	1.668	1.668	1.667	1.667
AF	1.493	1.513		1.512	1.512	1.512	1.506	1.506
AG	0.040	0.060		0.052	0.052	0.052	0.051	0.051
AH	0.188	0.193		0.189	0.189	0.189	0.189	0.189
AI	0.140	0.160		0.151	0.151	0.151	0.150	0.150
AJ	2.518	2.538		2.532	2.532	2.532	2.521	2.530
AK	0.040	0.060		0.048	0.048	0.048	0.048	0.048
AL	0.010	0.020		0.010	0.010	0.010	0.010	0.010
AM	0.140	0.160		0.156	0.156	0.156	0.150	0.150
AN	0.350	0.450		0.375	0.375	0.375	0.375	0.375
AO	0.240	0.260		0.250 OK	0.250	0.250	0.250	0.250
AP	0.150	0.170		0.155	0.155	0.155	0.155	0.155
AQ	0.053	0.073		0.063 OK	0.063	0.063	0.063	0.063
AR	101.64	105.64		103	103.64	103.64	103.64	103.64
AS	0.260	0.267		0.260	0.261	0.261	0.261	0.261
AT	0.053	0.073		0.063 OK	0.063	0.063	0.063	0.063
AU	4.118	4.138		4.124	4.126	4.126	4.126	4.126
AV								
AW								
Accept/Reject								

DAS

Measured by: *RT*

1

Date: 2018-11-08

Audited by:

9-89

Date: 18/11/11

Prototype Approval:

Date:

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.05.08	Dwg Rev. updated	KJ/JLM	
C	07.07.18	Dimension AS revised	KJ/JLM	
D	08.04.22	Reformat	KJ/JLM	
E	12.01.31	Dwg Rev. updated	KJ	

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